

SEQUENCE LISTING

<110> Lees, Ann M.
 Lees, Robert S.
 Law, Simon W.
 Arjona, Anibal A.

<120> NOVEL LOW DENSITY LIPOPROTEIN BINDING
 PROTEINS AND THEIR USE IN DIAGNOSING AND TREATING
 ATHEROSCLEROSIS

<130> 10797-004001

<140> US 09/616,289

<141> 2000-07-14

<150> US 09/517,849

<151> 2000-03-02

<150> US 08/979,608

<151> 1997-11-26

<150> US 60/031,930

<151> 1996-11-27

<150> US 60/048,547

<151> 1997-06-03

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<212> PRT

<213> Oryctolagus cuniculus

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Gly	Gln	Ala	Gly	Pro	Asp	Glu	Gly	Glu	Val	Asp	Ser	Cys	Leu	Arg	Gln
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Gly	Asn	Met	Thr	Ala	Ala	Leu	Gln	Ala	Ala	Leu	Lys	Asn	Pro	Pro	Ile
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Asn	Thr	Arg	Ser	Gln	Ala	Val	Lys	Asp	Arg	Ala	Gly	Ser	Ile	Val	Leu
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Lys	Val	Leu	Ile	Ser	Phe	Lys	Ala	Gly	Asp	Ile	Glu	Lys	Ala	Val	Gln
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Ser	Leu	Asp	Arg	Asn	Gly	Val	Asp	Leu	Leu	Met	Lys	Tyr	Ile	Tyr	Lys
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Gly	Phe	Glu	Ser	Pro	Ser	Asp	Asn	Ser	Ser	Ala	Val	Leu	Leu	Gln	Trp
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His	Glu	Lys	Ala	Leu	Ala	Ala	Gly	Gly	Val	Gly	Ser	Ile	Val	Arg	Val
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<213> *Oryctolagus cuniculus*

[illegible]

<211> 252

<213> Oryctolagus cuniculus

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			20					25					30		
Glu	Glu	Arg	Val	Leu	Glu	Lys	Glu	Glu	Glu	Glu	Glu	Glu	Glu	Glu	Asp
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Asp	Glu	Asp	Asp	Asp	Asp	Asp	Val	Val	Ser	Glu	Gly	Ser	Glu	Val	Pro
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Glu	Arg	Gly	Pro	Gln	Thr	Ala	Lys	Glu	Arg	Ala	Lys	Glu	Trp	Ser	Leu
			85					90					95		
Cys	Gly	Pro	His	Pro	Gly	Gln	Glu	Glu	Gly	Arg	Gly	Pro	Ala	Ala	Gly
			100					105					110		
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<213> Oryctolagus cuniculus
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Arg	Pro	Gly	Arg	Pro	Ala	Pro	Ala	Arg	Glu	Ala	Glu	Gly	Ala	Ser	Ser
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Gln	Ala	Pro	Gly	Arg	Pro	Glu	Gly	Ala	Gln	Ala	Lys	Thr	Ala	Gln	Pro
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Gly	Ala	Leu	Cys	Asp	Val	Ser	Glu	Glu	Leu	Ser	Arg	Gln	Leu	Glu	Asp
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Ile	Leu	Ser	Thr	Tyr	Cys	Val	Asp	Asn	Asn	Gln	Gly	Ala	Pro	Gly	Glu
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Asp	Gly	Val	Gln	Gly	Glu	Pro	Pro	Glu	Pro	Glu	Asp	Ala	Glu	Lys	Ser
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Arg	Ala	Tyr	Val	Ala	Arg	Asn	Gly	Glu	Pro	Glu	Pro	Gly	Thr	Pro	Val
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Glu	Lys	Lys	Lys	Ala	Lys	Gly	Leu	Gly	Lys	Glu	Ile	Thr	Leu	Leu	Met
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Gln	Thr	Leu	Asn	Thr	Leu	Ser	Thr	Pro	Glu	Glu	Lys	Leu	Ala	Ala	Leu
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Cys	Lys	Lys	Tyr	Ala	Glu	Leu	Leu	Glu	Glu	His	Arg	Asn	Ser	Gln	Lys
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Asp	His	Leu	Arg	Gly	Glu	His	Ser	Lys	Ala	Ile	Leu	Ala	Arg	Ser	Lys
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Leu	Glu	Ser	Leu	Cys	Arg	Glu	Leu	Gln	Arg	His	Asn	Arg	Ser	Leu	Lys
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Val Thr Ser His Phe Gln Met Thr Leu Asn Asp Ile Gln Leu Gln Met
 275 280 285
 Glu Gln His Asn Glu Arg Asn Ser Lys Leu Arg Gln Glu Asn Met Glu
 290 295 300
 Leu Ala Glu Arg Leu Lys Lys Leu Ile Glu Gln Tyr Glu Leu Arg Glu
 305 310 315 320
 Glu His Ile Asp Lys Val Phe Lys His Lys Asp Leu Gln Gln Gln Leu
 325 330 335
 Val Asp Ala Lys Leu Gln Gln Ala Gln Glu Met Leu Lys Glu Ala Glu
 340 345 350
 Glu Arg His Gln Arg Glu Lys Asp Phe Leu Leu Lys Glu Ala Val Glu
 355 360 365
 Ser Gln Arg Met Cys Glu Leu Met Lys Gln Gln Glu Thr His Leu Lys
 370 375 380
 Gln Gln Leu Ala Leu Tyr Thr Glu Lys Phe Glu Glu Phe Gln Asn Thr
 385 390 395 400
 Leu Ser Lys Ser Ser Glu Val Phe Thr Thr Phe Lys Gln Glu Met Glu
 405 410 415
 Lys Met Thr Lys Lys Ile Lys Lys Leu Glu Lys Glu Thr Thr Met Tyr
 420 425 430
 Arg Ser Arg Trp Glu Ser Ser Asn Lys Ala Leu Leu Glu Met Ala Glu
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 Glu Lys Thr Leu Arg Asp Lys Glu Leu Glu Gly Leu Gln Val Lys Ile
 450 455 460
 Gln Arg Leu Glu Lys Leu Cys Arg Ala Leu Gln Thr Glu Arg Asn Asp
 465 470 475 480
 Leu Asn Lys Arg Val Gln Asp Leu Ser Ala Gly Gly Gln Gly Pro Val
 485 490 495
 Ser Asp Ser Gly Pro Glu Arg Arg Pro Glu Pro Ala Thr Thr Ser Lys
 500 505 510
 Glu Gln Gly Val Glu Gly Pro Gly Ala Gln Val Pro Asn Ser Pro Arg
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<212> PRT

<213> Homo sapiens

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 Gly Gln Ala Gly Pro Asp Glu Gly Glu Val Asp Ser Cys Leu Arg Gln
 35 40 45
 Gly Asn Met Thr Ala Ala Leu Gln Ala Ala Leu Lys Asn Pro Pro Ile
 50 55 60
 Asn Thr Lys Ser Gln Ala Val Lys Asp Arg Ala Gly Ser Ile Val Leu
 65 70 75 80
 Lys Val Leu Ile Ser Phe Lys Ala Asn Asp Ile Glu Lys Ala Val Gln
 85 90 95
 Ser Leu Asp Lys Asn Gly Val Asp Leu Leu Met Lys Tyr Ile Tyr Lys
 100 105 110

Gly Phe Glu Ser Pro Ser Asp Asn Ser Ser Ala Met Leu Leu Gln Trp
 115 120 125
 His Glu Lys Ala Leu Ala Ala Gly Gly Val Gly Ser Ile Val Arg Val
 130 135 140
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 35 40 45
 Pro Gln Ser Ala Lys Glu Arg Val Lys Glu Trp Thr Pro Cys Gly Pro
 50 55 60
 His Gln Gly Gln Asp Glu Gly Arg Gly Pro Ala Pro Gly Ser Gly Thr
 65 70 75 80
 Arg Gln Val Phe Ser Met Ala Ala Met Asn Lys Glu Gly Gly Thr Ala
 85 90 95
 Ser Val Ala Thr Gly Pro Asp Ser Pro Ser Pro Val Pro Leu Pro Pro
 100 105 110
 Gly Lys Pro Ala Leu Pro Gly Ala Asp Gly Thr Pro Phe Gly Cys Pro
 115 120 125
 Pro Gly Arg Lys Glu Lys Pro Ser Asp Pro Val Glu Trp Thr Val Met
 130 135 140
 Asp Val Val Glu Tyr Phe Thr Glu Ala Gly Phe Pro Glu Gln Ala Thr
 145 150 155 160
 Ala Phe Gln Glu Gln Glu Ile Asp Gly Lys Ser Leu Leu Leu Met Gln
 165 170 175
 Arg Thr Asp Val Leu Thr Gly Leu Ser Ile Arg Leu Gly Pro Ala Leu
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 195 200 205
 Asp Asp Asp Pro Asp Gly Phe Leu Gly
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 <212> PRT
 <213> Homo sapiens

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 Ser Gln Ala Pro Arg Lys Pro Glu Gly Ala Gln Ala Arg Thr Ala Gln
 35 40 45
 Ser Gly Ala Leu Arg Asp Val Ser Glu Glu Leu Ser Arg Gln Leu Glu
 50 55 60
 Asp Ile Leu Ser Thr Tyr Cys Val Asp Asn Asn Gln Gly Gly Pro Gly

65					70					75					80
Glu	Asp	Gly	Ala	Gln	Gly	Glu	Pro	Ala	Glu	Pro	Glu	Asp	Ala	Glu	Lys
				85					90					95	
Ser	Arg	Thr	Tyr	Val	Ala	Arg	Asn	Gly	Glu	Pro	Glu	Pro	Thr	Pro	Val
			100					105					110		
Val	Tyr	Gly	Glu	Lys	Glu	Pro	Ser	Lys	Gly	Asp	Pro	Asn	Thr	Glu	Glu
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Ile	Arg	Gln	Ser	Asp	Glu	Val	Gly	Asp	Arg	Asp	His	Arg	Arg	Pro	Gln
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Glu	Lys	Lys	Lys	Ala	Lys	Gly	Leu	Gly	Lys	Glu	Ile	Thr	Leu	Leu	Met
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Cys	Lys	Lys	Tyr	Ala	Glu	Leu	Leu	Glu	Glu	His	Arg	Asn	Ser	Gln	Lys
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Gln	Met	Lys	Leu	Leu	Gln	Lys	Lys	Gln	Ser	Gln	Leu	Val	Gln	Glu	Lys
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225				230						235					240
Glu	Glu	Gly	Val	Gln	Arg	Ala	Arg	Glu	Glu	Glu	Glu	Lys	Arg	Lys	Glu
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Val	Thr	Ser	His	Phe	Gln	Val	Thr	Leu	Asn	Asp	Ile	Gln	Leu	Gln	Met
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Glu	Gln	His	Asn	Glu	Arg	Asn	Ser	Lys	Leu	Arg	Gln	Glu	Asn	Met	Glu
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Leu	Ala	Glu	Arg	Leu	Lys	Lys	Leu	Ile	Glu	Gln	Tyr	Glu	Leu	Arg	Glu
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Glu	His	Ile	Asp	Lys	Val	Phe	Lys	His	Lys	Asp	Leu	Gln	Gln	Gln	Leu
305				310						315					320
Val	Asp	Ala	Lys	Leu	Gln	Gln	Ala	Gln	Glu	Met	Leu	Lys	Glu	Ala	Glu
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Glu	Arg	His	Gln	Arg	Glu	Lys	Asp	Phe	Leu	Leu	Lys	Glu	Ala	Val	Glu
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Ser	Gln	Arg	Met	Cys	Glu	Leu	Met	Lys	Gln	Gln	Glu	Thr	His	Leu	Lys
		355					360					365			
Gln	Gln	Leu	Ala	Leu	Tyr	Thr	Glu	Lys	Phe	Glu	Glu	Phe	Gln	Asn	Thr
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Leu	Ser	Lys	Ser	Ser	Glu	Val	Phe	Thr	Thr	Phe	Lys	Gln	Glu	Met	Glu
385					390					395					400
Lys	Met	Thr	Lys	Lys	Ile	Lys	Lys	Leu	Glu	Lys	Glu	Thr	Thr	Met	Tyr
				405					410					415	
Arg	Ser	Arg	Trp	Glu	Ser	Ser	Asn	Lys	Ala	Leu	Leu	Glu	Met	Ala	Glu
			420					425					430		
Glu	Lys	Thr	Val	Arg	Asp	Lys	Glu	Leu	Glu	Gly	Leu	Gln	Val	Lys	Ile
		435					440					445			
Gln	Arg	Leu	Glu	Lys	Leu	Cys	Arg	Ala	Leu	Gln	Thr	Glu	Arg	Asn	Asp
		450				455					460				
Leu	Asn	Lys	Arg	Val	Gln	Asp	Leu	Ser	Ala	Gly	Gln	Gly	Ser	Leu	
465					470					475					480
Thr	Asp	Ser	Gly	Pro	Glu	Arg	Arg	Pro	Glu	Gly	Pro	Gly	Ala	Gln	Ala
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Pro	Ser	Ser	Pro	Arg	Val	Thr	Glu	Ala	Pro	Cys	Tyr	Pro	Gly	Ala	Pro
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1003333 134701

Arg Ala
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<210> 9
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<212> PRT
<213> Homo sapiens

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<213> Oryctolagus cuniculus

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<222> (58)...(510)

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Ser Lys Asn Thr Val Ser Ser Ala Arg Phe Arg Lys Val Asp Val Asp
5 10 15

gag tac gac gag aac aag ttc gtg gac gag gaa gac ggc ggc gac ggc 156
Glu Tyr Asp Glu Asn Lys Phe Val Asp Glu Glu Asp Gly Gly Asp Gly
20 25 30

cag gcg ggg ccg gac gag ggc gag gtg gac tcg tgc ctg cgg caa ggg 204
Gln Ala Gly Pro Asp Glu Gly Glu Val Asp Ser Cys Leu Arg Gln Gly
35 40 45

aac atg aca gcc gcc ctg cag gcg gcg ctg aag aac cct ccc atc aac 252
Asn Met Thr Ala Ala Leu Gln Ala Ala Leu Lys Asn Pro Pro Ile Asn
50 55 60 65

acc agg agc cag gcg gtg aag gac cgg gca ggc agc atc gtg ctg aag 300
Thr Arg Ser Gln Ala Val Lys Asp Arg Ala Gly Ser Ile Val Leu Lys
70 75 80

gtg ctc atc tcc ttc aag gcc ggc gac ata gaa aag gcc gtg cag tcc 348
Val Leu Ile Ser Phe Lys Ala Gly Asp Ile Glu Lys Ala Val Gln Ser
85 90 95

ctg gac agg aac ggc gtg gac ctg ctc atg aag tac atc tac aag ggc 396
Leu Asp Arg Asn Gly Val Asp Leu Leu Met Lys Tyr Ile Tyr Lys Gly
100 105 110

ttc gag agc ccc tcc gac aac agc agc gcc gtg ctc ctg cag tgg cac 444

FOZTET "6256200T

Phe Glu Ser Pro Ser Asp Asn Ser Ser Ala Val Leu Leu Gln Trp His
 115 120 125

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 Glu Lys Ala Leu Ala Ala Gly Gly Val Gly Ser Ile Val Arg Val Leu
 130 135 140 145

act gca agg aaa acc gtg tagcctggca ggaacgggtg cctgccgggg 540
 Thr Ala Arg Lys Thr Val
 150

agcgggagct gccggtacaa agacccaaaac gccagatgc cgcgctgcc ctgtgggcgg 600
 cgtctgttcc cagcttcgct ttttcccttt cccgtgtctg tcaggattac ataaggtttc 660
 ccttcgtgag aatcggagtg gcgcagaggg tccgtttcat acgcgccgtg cgtccggctg 720
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<213> *Oryctolagus cuniculus*

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<222> (1) ... (951)

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cgg gcc ggc ggc ccg gcg cgg ccc gtg agc ctg cgg gaa gtc gtg cgc 96
 Arg Ala Gly Gly Pro Ala Arg Pro Val Ser Leu Arg Glu Val Val Arg
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tac ctc ggg ggt agc agc ggc gct ggc ggc cgc ctg acc cgc ggc cgc 144
 Tyr Leu Gly Gly Ser Ser Gly Ala Gly Gly Arg Leu Thr Arg Gly Arg
 35 40 45

gtg cag ggt ctg ctg gaa gag gag gcg gcg gcg cgg ggc cgc ctg gag 192
 Val Gln Gly Leu Leu Glu Glu Ala Ala Ala Arg Gly Arg Leu Glu
 50 55 60

cgc acc cgt ctc gga gcg ctt gcg ctg ccc cgc ggg gac agg ccc gga 240
 Arg Thr Arg Leu Gly Ala Leu Ala Leu Pro Arg Gly Asp Arg Pro Gly
 65 70 75

1003599 1617

cgg gcg cca ccg gcc gcc agc gcc cgc gcg gcg cgg aac aag aga gct	288
Arg Ala Pro Pro Ala Ala Ser Ala Arg Ala Ala Arg Asn Lys Arg Ala	
80 85 90 95	
ggc gag gag cga gtg ctt gaa aag gag gag gag gag gag gag gag gaa	336
Gly Glu Glu Arg Val Leu Glu Lys Glu Glu Glu Glu Glu Glu Glu Glu	
100 105 110	
gac gac gag gac gac gac gac gac gtc gtg tcc gag ggc tcg gag gtg	384
Asp Asp Glu Asp Asp Asp Asp Asp Val Val Ser Glu Gly Ser Glu Val	
115 120 125	
ccc gag agc gat cgt ccc gcc ggt gcc cag cat cac cag ctg aat ggc	432
Pro Glu Ser Asp Arg Pro Ala Gly Ala Gln His His Gln Leu Asn Gly	
130 135 140	
ggc gag cgc gcc ccg cag acc gcc aag gag cgg gcc aag gag tgg tcg	480
Gly Glu Arg Gly Pro Gln Thr Ala Lys Glu Arg Ala Lys Glu Trp Ser	
145 150 155	
ctg tgt ggc ccc cac cct gcc cag gag gaa ggg cgg ggg ccg gcc gcg	528
Leu Cys Gly Pro His Pro Gly Gln Glu Glu Gly Arg Gly Pro Ala Ala	
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ggc agt ggc acc cgc cag gtg ttc tcc atg gcc gcc ttg agt aag gag	576
Gly Ser Gly Thr Arg Gln Val Phe Ser Met Ala Ala Leu Ser Lys Glu	
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Gly Gly Ser Ala Ser Ser Thr Thr Gly Pro Asp Ser Pro Ser Pro Val	
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cct ttg ccc ccc ggg aag cca gcc ctc cca gga gcc gat ggg acc ccc	672
Pro Leu Pro Pro Gly Lys Pro Ala Leu Pro Gly Ala Asp Gly Thr Pro	
210 215 220	
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Phe Gly Cys Pro Ala Gly Arg Lys Glu Lys Pro Ala Asp Pro Val Glu	
225 230 235	
tgg aca gtc atg gac gtc gtg gag tac ttc acc gag gcg ggc ttc cct	768
Trp Thr Val Met Asp Val Val Glu Tyr Phe Thr Glu Ala Gly Phe Pro	
240 245 250 255	
gag caa gcc acg gct ttc cag gag cag gag atc gac ggc aag tcc ctg	816
Glu Gln Ala Thr Ala Phe Gln Glu Gln Glu Ile Asp Gly Lys Ser Leu	
260 265 270	
ctg ctc atg cag cgc acc gat gtc ctc acc ggc ctg tcc atc cgc ctg	864
Leu Leu Met Gln Arg Thr Asp Val Leu Thr Gly Leu Ser Ile Arg Leu	
275 280 285	
ggg cca gcg ttg aaa atc tat gag cac cat atc aag gtg ctg cag cag	912
Gly Pro Ala Leu Lys Ile Tyr Glu His His Ile Lys Val Leu Gln Gln	
290 295 300	
ggt cac ttc gag gac gat gac ccg gaa ggc ttc ctg gga tgagcacaga	961

Gly His Phe Glu Asp Asp Asp Pro Glu Gly Phe Leu Gly
305 310 315

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<211> 1362

<212> DNA

<213> *Oryctolagus cuniculus*

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1 5 10 15

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ctt gaa aag gag gag gag gag gag gag gag gaa gac gac gag gac gac 96
Leu Glu Lys Glu Glu Glu Glu Glu Glu Glu Glu Asp Asp Glu Asp Asp
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Asp Asp Asp Val Val Ser Glu Gly Ser Glu Val Pro Glu Ser Asp Arg
35 40 45

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ccc gcg ggt gcg cag cat cac cag ctg aat ggc ggc gag cgc ggc ccg 192
Pro Ala Gly Ala Gln His His Gln Leu Asn Gly Gly Glu Arg Gly Pro
50 55 60

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cag acc gcc aag gag cgg gcc aag gag tgg tcg ctg tgt ggc ccc cac 240
Gln Thr Ala Lys Glu Arg Ala Lys Glu Trp Ser Leu Cys Gly Pro His
65 70 75 80

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cct ggc cag gag gaa ggg cgg ggg ccg gcc gcg ggc agt ggc acc cgc 288
Pro Gly Gln Glu Glu Gly Arg Gly Pro Ala Ala Gly Ser Gly Thr Arg
85 90 95

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cag gtg ttc tcc atg gcg gcc ttg agt aag gag ggg gga tca gcc tct 336
Gln Val Phe Ser Met Ala Ala Leu Ser Lys Glu Gly Gly Ser Ala Ser
100 105 110

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tcg acc acc ggg cct gac tcc ccg tcc ccg gtg cct ttg ccc ccc ggg 384
Ser Thr Thr Gly Pro Asp Ser Pro Ser Pro Val Pro Leu Pro Pro Gly
115 120 125

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aag cca gcc ctc cca gga gcc gat ggg acc ccc ttt ggc tgc cct gcc 432
 Lys Pro Ala Leu Pro Gly Ala Asp Gly Thr Pro Phe Gly Cys Pro Ala
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 Gly Arg Lys Glu Lys Pro Ala Asp Pro Val Glu Trp Thr Val Met Asp
 145 150 155 160

gtc gtg gag tac ttc acc gag gcg ggc ttc cct gag caa gcc acg gct 528
 Val Val Glu Tyr Phe Thr Glu Ala Gly Phe Pro Glu Gln Ala Thr Ala
 165 170 175

ttc cag gag cag gag atc gac ggc aag tcc ctg ctg ctc atg cag cgc 576
 Phe Gln Glu Gln Glu Ile Asp Gly Lys Ser Leu Leu Leu Met Gln Arg
 180 185 190

acc gat gtc ctc acc ggc ctg tcc atc cgc ctg ggg cca gcg ttg aaa 624
 Thr Asp Val Leu Thr Gly Leu Ser Ile Arg Leu Gly Pro Ala Leu Lys
 195 200 205

atc tat gag cac cat atc aag gtg ctg cag cag ggt cac ttc gag gac 672
 Ile Tyr Glu His His Ile Lys Val Leu Gln Gln Gly His Phe Glu Asp
 210 215 220

gat gac ccg gaa ggc ttc ctg gga tgagcacaga gccgccgcgc cccttgctccc 726
 Asp Asp Pro Glu Gly Phe Leu Gly
 225 230

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<212> DNA

<213> *Oryctolagus cuniculus*

<220>

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<222> (1)...(756)

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gcg cca ccg gcc gcc agc gcc cgc gcg gcg cgg aac aag aga gct ggc 96
 Ala Pro Pro Ala Ala Ser Ala Arg Ala Ala Arg Asn Lys Arg Ala Gly
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gag	gag	cga	gtg	ctt	gaa	aag	gag	gag	gag	gag	gag	gag	gag	gaa	gac	144
Glu	Glu	Arg	Val	Leu	Glu	Lys	Glu	Glu	Glu	Glu	Glu	Glu	Glu	Glu	Asp	
		35					40				45					
gac	gag	gac	gac	gac	gac	gac	gtc	gtg	tcc	gag	ggc	tcg	gag	gtg	ccc	192
Asp	Glu	Asp	Asp	Asp	Asp	Asp	Val	Val	Ser	Glu	Gly	Ser	Glu	Val	Pro	
	50					55					60					
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Glu	Ser	Asp	Arg	Pro	Ala	Gly	Ala	Gln	His	His	Gln	Leu	Asn	Gly	Gly	
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Glu	Arg	Gly	Pro	Gln	Thr	Ala	Lys	Glu	Arg	Ala	Lys	Glu	Trp	Ser	Leu	
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tgt	ggc	ccc	cac	cct	ggc	cag	gag	gaa	ggg	cgg	ggg	ccg	gcc	gcg	ggc	336
Cys	Gly	Pro	His	Pro	Gly	Gln	Glu	Glu	Gly	Arg	Gly	Pro	Ala	Ala	Gly	
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agt	ggc	acc	cgc	cag	gtg	ttc	tcc	atg	gcg	gcc	ttg	agt	aag	gag	ggg	384
Ser	Gly	Thr	Arg	Gln	Val	Phe	Ser	Met	Ala	Ala	Leu	Ser	Lys	Glu	Gly	
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Gly	Ser	Ala	Ser	Ser	Thr	Thr	Gly	Pro	Asp	Ser	Pro	Ser	Pro	Val	Pro	
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	145				150					155					160	
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Thr	Val	Met	Asp	Val	Val	Glu	Tyr	Phe	Thr	Glu	Ala	Gly	Phe	Pro	Glu	
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caa	gcc	acg	gct	ttc	cag	gag	cag	gag	atc	gac	ggc	aag	tcc	ctg	ctg	624
Gln	Ala	Thr	Ala	Phe	Gln	Glu	Gln	Glu	Ile	Asp	Gly	Lys	Ser	Leu	Leu	
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ctc	atg	cag	cgc	acc	gat	gtc	ctc	acc	ggc	ctg	tcc	atc	cgc	ctg	ggg	672
Leu	Met	Gln	Arg	Thr	Asp	Val	Leu	Thr	Gly	Leu	Ser	Ile	Arg	Leu	Gly	
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cca	gcg	ttg	aaa	atc	tat	gag	cac	cat	atc	aag	gtg	ctg	cag	cag	ggt	720
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<212> DNA
<213> Oryctolagus cuniculus
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<222> (61) ... (1731)
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20 25 30

cgg ccc ggc cgg ccg gcc ccc gcc cga gaa gcc gaa ggt gcc agc agc 204
Arg Pro Gly Arg Pro Ala Pro Ala Arg Glu Ala Glu Gly Ala Ser Ser

 35 40 45

cag gct ccc ggg agg ccg gag ggg gct caa gcc aaa act gct cag cct 252
Gln Ala Pro Gly Arg Pro Glu Gly Ala Gln Ala Lys Thr Ala Gln Pro
50 55 60

ggg gcg ctc tgt gat gtc tct gag gag ctg agc cgc cag ttg gaa gac 300
Gly Ala Leu Cys Asp Val Ser Glu Glu Leu Ser Arg Gln Leu Glu Asp
65 70 75 80

ata ctc agt aca tac tgt gtg gac aac aac cag ggg gcc ccg ggt gag 348
Ile Leu Ser Thr Tyr Cys Val Asp Asn Asn Gln Gly Ala Pro Gly Glu
85 90 95

gat ggg gtc cag ggt gag ccc cct gaa cct gaa gat gca gag aag tct 396
Asp Gly Val Gln Gly Glu Pro Pro Glu Pro Glu Asp Ala Glu Lys Ser
100 105 110

cgc gcc tat gtg gca agg aat ggg gag ccg gag ccg ggc acc cca gta 444
Arg Ala Tyr Val Ala Arg Asn Gly Glu Pro Glu Pro Gly Thr Pro Val
115 120 125

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Val Asn Gly Glu Lys Glu Thr Ser Lys Ala Glu Pro Gly Thr Glu Glu

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Ile	Arg	Thr	Ser	Asp	Glu	Val	Gly	Asp	Arg	Asp	His	Arg	Arg	Pro	Gln	
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Glu	Lys	Lys	Lys	Ala	Lys	Gly	Leu	Gly	Lys	Glu	Ile	Thr	Leu	Leu	Met	
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cag	aca	ctg	aac	acg	ctg	agc	acc	cca	gag	gag	aag	ctg	gcg	gct	ctg	636
Gln	Thr	Leu	Asn	Thr	Leu	Ser	Thr	Pro	Glu	Glu	Lys	Leu	Ala	Ala	Leu	
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Cys	Lys	Lys	Tyr	Ala	Glu	Leu	Leu	Glu	Glu	His	Arg	Asn	Ser	Gln	Lys	
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Gln	Met	Lys	Leu	Leu	Gln	Lys	Lys	Gln	Ser	Gln	Leu	Val	Gln	Glu	Lys	
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Asp	His	Leu	Arg	Gly	Glu	His	Ser	Lys	Ala	Ile	Leu	Ala	Arg	Ser	Lys	
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ctc	gag	agc	ctg	tgc	cgg	gag	ctg	cag	cgg	cac	aac	cgc	tcg	ctc	aag	828
Leu	Glu	Ser	Leu	Cys	Arg	Glu	Leu	Gln	Arg	His	Asn	Arg	Ser	Leu	Lys	
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Val	Thr	Ser	His	Phe	Gln	Met	Thr	Leu	Asn	Asp	Ile	Gln	Leu	Gln	Met	
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Glu	Gln	His	Asn	Glu	Arg	Asn	Ser	Lys	Leu	Arg	Gln	Glu	Asn	Met	Glu	
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Leu	Ala	Glu	Arg	Leu	Lys	Lys	Leu	Ile	Glu	Gln	Tyr	Glu	Leu	Arg	Glu	
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gag	cac	atc	gac	aaa	gtc	ttc	aaa	cac	aag	gat	ctg	cag	cag	cag	ctg	1068
Glu	His	Ile	Asp	Lys	Val	Phe	Lys	His	Lys	Asp	Leu	Gln	Gln	Gln	Leu	
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tcc	cag	agg	atg	tgc	gag	ctg	atg	aag	caa	cag	gag	acc	cac	ctg	aag	1212
Ser	Gln	Arg	Met	Cys	Glu	Leu	Met	Lys	Gln	Gln	Glu	Thr	His	Leu	Lys	
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Gln	Gln	Leu	Ala	Leu	Tyr	Thr	Glu	Lys	Phe	Glu	Glu	Phe	Gln	Asn	Thr	
385						390						395			400	
ctt	tcc	aaa	agc	agc	gag	gtg	ttc	acc	aca	ttc	aaa	cag	gaa	atg	gaa	1308
Leu	Ser	Lys	Ser	Ser	Glu	Val	Phe	Thr	Thr	Phe	Lys	Gln	Glu	Met	Glu	
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aag	atg	aca	aag	aag	atc	aag	aag	ctg	gag	aaa	gag	acc	acc	atg	tac	1356
Lys	Met	Thr	Lys	Lys	Ile	Lys	Lys	Leu	Glu	Lys	Glu	Thr	Thr	Met	Tyr	
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cgt	tcc	cgg	tgg	gag	agc	agc	aac	aag	gcc	ctg	ctt	gag	atg	gct	gag	1404
Arg	Ser	Arg	Trp	Glu	Ser	Ser	Asn	Lys	Ala	Leu	Leu	Glu	Met	Ala	Glu	
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Gln	Arg	Leu	Glu	Lys	Leu	Cys	Arg	Ala	Leu	Gln	Thr	Glu	Arg	Asn	Asp	
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Ser	Asp	Ser	Gly	Pro	Glu	Arg	Arg	Pro	Glu	Pro	Ala	Thr	Thr	Ser	Lys	
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Ala	Thr	Asp	Ala	Ser	Cys	Cys	Ala	Gly	Ala	Pro	Ser	Thr	Glu	Ala	Ser	
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<213> Homo sapiens

<220>

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<222> (118) ... (570)

<400> 15

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Met

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 5 10 15

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 Glu Tyr Asp Glu Asn Lys Phe Val Asp Glu Glu Asp Gly Gly Asp Gly
 20 25 30

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 Gln Ala Gly Pro Asp Glu Gly Glu Val Asp Ser Cys Leu Arg Gln Gly
 35 40 45

 aac atg aca gct gcc cta cag gca gct ctg aag aac ccc cct atc aac 312
 Asn Met Thr Ala Ala Leu Gln Ala Ala Leu Lys Asn Pro Pro Ile Asn
 50 55 60 65

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 Thr Lys Ser Gln Ala Val Lys Asp Arg Ala Gly Ser Ile Val Leu Lys
 70 75 80

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 Val Leu Ile Ser Phe Lys Ala Asn Asp Ile Glu Lys Ala Val Gln Ser
 85 90 95

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 Leu Asp Lys Asn Gly Val Asp Leu Leu Met Lys Tyr Ile Tyr Lys Gly
 100 105 110

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 Phe Glu Ser Pro Ser Asp Asn Ser Ser Ala Met Leu Leu Gln Trp His
 115 120 125

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 130 135 140 145

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 150

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 Asp Arg Pro Ala Gly Ala Gln His His Gln Leu Asn Gly Glu Arg Gly
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 Pro Gln Ser Ala Lys Glu Arg Val Lys Glu Trp Thr Pro Cys Gly Pro
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 Arg Gln Val Phe Ser Met Ala Ala Met Asn Lys Glu Gly Gly Thr Ala
 85 90 95
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 Ser Val Ala Thr Gly Pro Asp Ser Pro Ser Pro Val Pro Leu Pro Pro
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 Gly Lys Pro Ala Leu Pro Gly Ala Asp Gly Thr Pro Phe Gly Cys Pro
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 145 150 155 160

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cgc aca gat gtg ctc acc ggc ctg tcc atc cgc ctc ggg cca gcc ctg 576
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 195 200 205

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 Glu Arg Pro Ser Gln Ala Ala Pro Ala Val Glu Ala Glu Gly Pro Gly
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 Ser Ser Gln Ala Pro Arg Lys Pro Glu Gly Ala Gln Ala Arg Thr Ala
 35 40 45

cag tct ggg gcc ctt cgt gat gtc tct gag gag ctg agc cgc caa ctg 191
 Gln Ser Gly Ala Leu Arg Asp Val Ser Glu Glu Leu Ser Arg Gln Leu
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 Glu Asp Ile Leu Ser Thr Tyr Cys Val Asp Asn Asn Gln Gly Gly Pro
 65 70 75

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Lys	Ser	Arg	Thr	Tyr	Val	Ala	Arg	Asn	Gly	Glu	Pro	Glu	Pro	Thr	Pro	
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Gln	Glu	Lys	Lys	Lys	Ala	Lys	Gly	Leu	Gly	Lys	Glu	Ile	Thr	Leu	Leu	
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Met	Gln	Thr	Leu	Asn	Thr	Leu	Ser	Thr	Pro	Glu	Glu	Lys	Leu	Ala	Ala	
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Lys	Asp	His	Leu	Arg	Gly	Glu	His	Ser	Lys	Ala	Val	Leu	Ala	Arg	Ser	
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Ser	Pro	Gly	Pro	Ala	Gln	Pro	Gly	Pro	Arg	Ala	Gln	Arg	Ala	Ala	Pro	
				165					170					175		
Leu	Ala	Ala	Pro	Pro	Pro	Ala	Pro	Ala	Ala	Pro	Pro	Ala	Val	Ala	Pro	
			180					185					190			
Pro	Ala	Gly	Pro	Arg	Arg	Ala	Pro	Pro	Pro	Ala	Val	Ala	Ala	Arg	Glu	
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Pro	Pro	Leu	Pro	Pro	Pro	Pro	Gln	Pro	Pro	Ala	Pro	Pro	Gln	Gln	Gln	
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Gln	Pro	Pro	Pro	Pro	Gln	Pro	Gln	Pro	Pro	Pro	Glu	Gly	Gly	Ala	Val	
225					230					235					240	
Arg	Ala	Gly	Gly	Ala	Ala	Arg	Pro	Val	Ser	Leu	Arg	Glu	Val	Val	Arg	
				245					250					255		
Tyr	Leu	Gly	Gly	Ser	Gly	Gly	Ala	Gly	Gly	Arg	Leu	Thr	Arg	Gly	Arg	
			260					265					270			
Val	Gln	Gly	Leu	Leu	Glu	Glu	Glu	Ala	Ala	Ala	Arg	Gly	Arg	Leu	Glu	
		275					280					285				
Arg	Thr	Arg	Leu	Gly	Ala	Leu	Ala	Leu	Pro	Arg	Gly	Asp	Arg	Pro	Gly	
	290					295					300					
Arg	Ala	Pro	Pro	Ala	Ala	Ser	Ala	Arg	Pro	Ser	Arg	Ser	Lys	Arg	Gly	
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Gly	Glu	Glu	Arg	Val	Leu	Glu	Lys	Glu	Glu	Glu	Glu	Asp	Asp	Asp	Glu	
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385 390 395 400
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 405 410 415
 Ala Ser Val Ala Thr Gly Pro Asp Ser Pro Ser Pro Val Pro Leu Pro
 420 425 430
 Pro Gly Lys Pro Ala Leu Pro Gly Ala Asp Gly Thr Pro Phe Gly Cys
 435 440 445
 Pro Pro Gly Arg Lys Glu Lys Pro Ser Asp Pro Val Glu Trp Thr Val
 450 455 460
 Met Asp Val Val Glu Tyr Phe Thr Glu Ala Gly Phe Pro Glu Gln Ala
 465 470 475 480
 Thr Ala Phe Gln Glu Gln Glu Ile Asp Gly Lys Ser Leu Leu Leu Met
 485 490 495
 Gln Arg Thr Asp Val Leu Thr Gly Leu Ser Ile Arg Leu Gly Pro Ala
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 Glu Asp Asp Asp Pro Asp Gly Phe Leu Gly
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<210> 44

<211> 546

<212> PRT

<213> Homo sapiens

<400> 44

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 Ser Gln Ala Pro Arg Lys Pro Glu Gly Ala Gln Ala Arg Thr Ala Gln
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 Ser Gly Ala Leu Arg Asp Val Ser Glu Glu Leu Ser Arg Gln Leu Glu
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 Asp Ile Leu Ser Thr Tyr Cys Val Asp Asn Asn Gln Gly Gly Pro Gly
 85 90 95
 Glu Asp Gly Ala Gln Gly Glu Pro Ala Glu Pro Glu Asp Ala Glu Lys
 100 105 110
 Ser Arg Thr Tyr Val Ala Arg Asn Gly Glu Pro Glu Pro Thr Pro Val
 115 120 125
 Val Asn Gly Glu Lys Glu Pro Ser Lys Gly Asp Pro Asn Thr Glu Glu
 130 135 140
 Ile Arg Gln Ser Asp Glu Val Gly Asp Arg Asp His Arg Arg Pro Gln
 145 150 155 160
 Glu Lys Lys Lys Ala Lys Gly Leu Gly Lys Glu Ile Thr Leu Leu Met
 165 170 175
 Gln Thr Leu Asn Thr Leu Ser Thr Pro Glu Glu Lys Leu Ala Leu
 180 185 190
 Cys Lys Lys Tyr Ala Glu Leu Leu Glu Glu His Arg Asn Ser Gln Lys
 195 200 205
 Gln Met Lys Leu Leu Gln Lys Lys Gln Ser Gln Leu Val Gln Glu Lys
 210 215 220
 Asp His Leu Arg Gly Glu His Ser Lys Ala Val Leu Ala Arg Ser Lys
 225 230 235 240
 Leu Glu Ser Leu Cys Arg Glu Leu Gln Arg His Asn Arg Ser Leu Lys

96

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 Glu Trp Ile Leu Asp Thr Ile Asp Ser Leu Arg Ser Arg Lys Ala Arg
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 Pro Asp Leu Glu Arg Ile Cys Arg Met Val Arg Arg Arg His Gly Pro
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 Glu Pro Glu Arg Thr Arg Ala Glu Leu Glu Lys Leu Ile Gln Gln Arg
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 Ala Val Leu Arg Val Ser Tyr Lys Gly Ser Ile Ser Tyr Arg Asn Ala
 85 90 95

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 Ala Arg Val Gln Pro Pro Arg Arg Gly Ala Thr Pro Pro Ala Pro Pro
 100 105 110

cgc gcc ccc cgc ggg gcc ccc gcc gcc gcc gcc gcc gcc gcc ccg ccg 384
 Arg Ala Pro Arg Gly Ala Pro Ala Ala Ala Ala Ala Ala Pro Pro
 115 120 125

ccc acg ccc gcc ccg ccg cca ccg ccc gcg ccc gtc gcc gcc gcc gcc 432
 Pro Thr Pro Ala Pro Pro Pro Pro Ala Pro Val Ala Ala Ala Ala
 130 135 140

ccg gcc cgg gcg ccc cgc gcg gcc gcc gcc gcc gcc gcc aca gcg ccc ccc 480
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 Ser Pro Gly Pro Ala Gln Pro Gly Pro Arg Ala Gln Arg Ala Ala Pro
 165 170 175

ctg gcc gcg ccg ccg ccc gcg cca gcc gct ccc ccg gcg gtg gcg ccc 576
 Leu Ala Ala Pro Pro Pro Ala Pro Ala Ala Pro Pro Ala Val Ala Pro
 180 185 190

ccg gcc ggc ccg cgc cgc gcc ccc ccg ccc gcc gtc gcc gcc cgg gag 624
 Pro Ala Gly Pro Arg Arg Ala Pro Pro Pro Ala Val Ala Ala Arg Glu
 195 200 205

ccg ccg ctg ccg ccg ccg cca cag ccg ccg gcg ccg cca cag cag cag 672
 Pro Pro Leu Pro Pro Pro Pro Gln Pro Pro Ala Pro Pro Gln Gln Gln
 210 215 220

cag ccg ccg ccg ccg cag cca cag ccg ccg ccg gag ggg ggc gcg gtg 720
 Gln Pro Pro Pro Pro Gln Pro Gln Pro Pro Pro Glu Gly Gly Ala Val
 225 230 235 240

cgg gcc ggc ggc gcg gcg cgg ccc gtg agc ctg cgg gaa gtc gtg cgc 768
 Arg Ala Gly Gly Ala Ala Arg Pro Val Ser Leu Arg Glu Val Val Arg
 245 250 255

tac ctc ggg ggc agc ggc ggc gcc ggc ggt cgc cta acc cgc ggc cgc	816
Tyr Leu Gly Gly Ser Gly Gly Ala Gly Gly Arg Leu Thr Arg Gly Arg	
260 265 270	
gtg cag ggg ctg ctg gag gag gag gcg gcg gct cga ggc cgt ctg gag	864
Val Gln Gly Leu Leu Glu Glu Glu Ala Ala Ala Arg Gly Arg Leu Glu	
275 280 285	
cgc acc cgt ctc gga gcg ctt gcg ctg ccc cgc ggg gac agg ccc gga	912
Arg Thr Arg Leu Gly Ala Leu Ala Leu Pro Arg Gly Asp Arg Pro Gly	
290 295 300	
cgg gcg ccg ccg gcc gcc agc gcc cgc ccg tct cgc agc aag aga ggt	960
Arg Ala Pro Pro Ala Ala Ser Ala Arg Pro Ser Arg Ser Lys Arg Gly	
305 310 315 320	
gga gaa gag cga gta ctt gag aaa gaa gag gaa gaa gat gat gat gaa	1008
Gly Glu Glu Arg Val Leu Glu Lys Glu Glu Glu Glu Asp Asp Asp Glu	
325 330 335	
gat gaa gat gaa gaa gat gat gtg tca gag ggc tct gaa gtg ccc gag	1056
Asp Glu Asp Glu Glu Asp Asp Val Ser Glu Gly Ser Glu Val Pro Glu	
340 345 350	
agt gac cgt cct gca ggt gcc cag cac cac cag ctt aac ggc gag cgg	1104
Ser Asp Arg Pro Ala Gly Ala Gln His His Gln Leu Asn Gly Glu Arg	
355 360 365	
gga cct cag agt gcc aag gag agg gtc aag gag tgg acc ccc tgc gga	1152
Gly Pro Gln Ser Ala Lys Glu Arg Val Lys Glu Trp Thr Pro Cys Gly	
370 375 380	
ccg cac cag ggc cag gat gaa ggg ccg ggg cca gcc ccg ggc agc ggc	1200
Pro His Gln Gly Gln Asp Glu Gly Arg Gly Pro Ala Pro Gly Ser Gly	
385 390 395 400	
acc cgc cag gtg ttc tcc atg gca gcc atg aac aag gaa ggg gga aca	1248
Thr Arg Gln Val Phe Ser Met Ala Ala Met Asn Lys Glu Gly Gly Thr	
405 410 415	
gct tct gtt gcc acc ggg cca gac tcc ccg tcc ccc gtg cct ttg ccc	1296
Ala Ser Val Ala Thr Gly Pro Asp Ser Pro Ser Pro Val Pro Leu Pro	
420 425 430	
cca ggc aaa cca gcc cta cct ggg gcc gac ggg acc ccc ttt ggc tgt	1344
Pro Gly Lys Pro Ala Leu Pro Gly Ala Asp Gly Thr Pro Phe Gly Cys	
435 440 445	
ccg ccc ggg cgc aaa gag aag cca tct gat ccc gtc gag tgg acc gtg	1392
Pro Pro Gly Arg Lys Glu Lys Pro Ser Asp Pro Val Glu Trp Thr Val	
450 455 460	
atg gat gtc gtc gaa tat ttt act gag gct gga ttc ccg gag cag gcg	1440
Met Asp Val Val Glu Tyr Phe Thr Glu Ala Gly Phe Pro Glu Gln Ala	
465 470 475 480	
aca gct ttc caa gag cag gaa att gat ggc aaa tct ttg ctg ctc atg	1488

Thr	Ala	Phe	Gln	Glu	Gln	Glu	Ile	Asp	Gly	Lys	Ser	Leu	Leu	Leu	Met		
				485					490					495			
cag	cgc	aca	gat	gtg	ctc	acc	ggc	ctg	tcc	atc	cgc	ctc	ggg	cca	gcc	1536	
Gln	Arg	Thr	Asp	Val	Leu	Thr	Gly	Leu	Ser	Ile	Arg	Leu	Gly	Pro	Ala		
			500					505					510				
ctg	aaa	atc	tac	gag	cac	cac	atc	aag	gtg	ctt	cag	caa	ggc	cac	ttt	1584	
Leu	Lys	Ile	Tyr	Glu	His	His	Ile	Lys	Val	Leu	Gln	Gln	Gly	His	Phe		
			515				520						525				
gag	gat	gat	gac	ccc	gat	ggc	ttc	tta	ggc							1614	
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Met	Lys	Asn	Gln	Asp	Lys	Lys	Asn	Gly	Ala	Ala	Lys	Gln	Ser	Asn	Pro		
1				5				10						15			
aaa	agc	agc	cca	gga	caa	ccg	gaa	gca	gga	ccc	gag	gga	gcc	cag	gag	96	
Lys	Ser	Ser	Pro	Gly	Gln	Pro	Glu	Ala	Gly	Pro	Glu	Gly	Ala	Gln	Glu		
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cgg	ccc	agc	cag	gcg	gct	cct	gca	gta	gaa	gca	gaa	ggc	ccc	ggc	agc	144	
Arg	Pro	Ser	Gln	Ala	Ala	Pro	Ala	Val	Glu	Ala	Glu	Gly	Pro	Gly	Ser		
			35				40					45					
agc	cag	gct	cct	cgg	aag	ccg	gag	ggc	gct	caa	gcc	aga	acg	gct	cag	192	
Ser	Gln	Ala	Pro	Arg	Lys	Pro	Glu	Gly	Ala	Gln	Ala	Arg	Thr	Ala	Gln		
			50			55					60						
tct	ggg	gcc	ctt	cgt	gat	gtc	tct	gag	gag	ctg	agc	cgc	caa	ctg	gaa	240	
Ser	Gly	Ala	Leu	Arg	Asp	Val	Ser	Glu	Glu	Leu	Ser	Arg	Gln	Leu	Glu		
	65				70					75					80		
gac	ata	ctg	agc	aca	tac	tgt	gtg	gac	aat	aac	cag	ggg	ggc	ccc	ggc	288	
Asp	Ile	Leu	Ser	Thr	Tyr	Cys	Val	Asp	Asn	Asn	Gln	Gly	Gly	Pro	Gly		
				85					90					95			
gag	gat	ggg	gca	cag	ggc	gag	ccg	gct	gaa	ccc	gaa	gat	gca	gag	aag	336	
Glu	Asp	Gly	Ala	Gln	Gly	Glu	Pro	Ala	Glu	Pro	Glu	Asp	Ala	Glu	Lys		
			100					105					110				
tcc	cgg	acc	tat	gtg	gca	agg	aat	ggg	gag	cct	gaa	cca	act	cca	gta	384	
Ser	Arg	Thr	Tyr	Val	Ala	Arg	Asn	Gly	Glu	Pro	Glu	Pro	Thr	Pro	Val		
			115				120					125					

gtc	aat	gga	gag	aag	gaa	ccc	tcc	aag	ggg	gat	cca	aac	aca	gaa	gag	432
Val	Asn	Gly	Glu	Lys	Glu	Pro	Ser	Lys	Gly	Asp	Pro	Asn	Thr	Glu	Glu	
	130					135					140					
atc	cgg	cag	agt	gac	gag	gtc	gga	gac	cga	gac	cat	cga	agg	cca	cag	480
Ile	Arg	Gln	Ser	Asp	Glu	Val	Gly	Asp	Arg	Asp	His	Arg	Arg	Pro	Gln	
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gag	aag	aaa	aaa	gcc	aag	ggg	ttg	ggg	aag	gag	atc	acg	ttg	ctg	atg	528
Glu	Lys	Lys	Lys	Ala	Lys	Gly	Leu	Gly	Lys	Glu	Ile	Thr	Leu	Leu	Met	
				165					170					175		
cag	aca	ttg	aat	act	ctg	agt	acc	cca	gag	gag	aag	ctg	gct	gct	ctg	576
Gln	Thr	Leu	Asn	Thr	Leu	Ser	Thr	Pro	Glu	Glu	Lys	Leu	Ala	Ala	Leu	
			180					185					190			
tgc	aag	aag	tat	gct	gaa	ctg	ctg	gag	gag	cac	cgg	aat	tca	cag	aag	624
Cys	Lys	Lys	Tyr	Ala	Glu	Leu	Leu	Glu	Glu	His	Arg	Asn	Ser	Gln	Lys	
	195					200						205				
cag	atg	aag	ctc	cta	cag	aaa	aag	cag	agc	cag	ctg	gtg	caa	gag	aag	672
Gln	Met	Lys	Leu	Leu	Gln	Lys	Lys	Gln	Ser	Gln	Leu	Val	Gln	Glu	Lys	
	210					215					220					
gac	cac	ctg	cgc	ggg	gag	cac	agc	aag	gcc	gtc	ctg	gcc	cgc	agc	aag	720
Asp	His	Leu	Arg	Gly	Glu	His	Ser	Lys	Ala	Val	Leu	Ala	Arg	Ser	Lys	
225					230					235					240	
ctt	gag	agc	cta	tgc	cgt	gag	ctg	cag	cgg	cac	aac	cgc	tcc	ctc	aag	768
Leu	Glu	Ser	Leu	Cys	Arg	Glu	Leu	Gln	Arg	His	Asn	Arg	Ser	Leu	Lys	
				245					250					255		
gaa	gaa	ggg	gtg	cag	cgg	gcc	cgg	gag	gag	gag	gag	aag	cgc	aag	gag	816
Glu	Glu	Gly	Val	Gln	Arg	Ala	Arg	Glu	Glu	Glu	Glu	Lys	Arg	Lys	Glu	
			260					265					270			
gtg	acc	tgc	cac	ttc	cag	gtg	aca	ctg	aat	gac	att	cag	ctg	cag	atg	864
Val	Thr	Ser	His	Phe	Gln	Val	Thr	Leu	Asn	Asp	Ile	Gln	Leu	Gln	Met	
		275					280					285				
gaa	cag	cac	aat	gag	cgc	aac	tcc	aag	ctg	cgc	caa	gag	aac	atg	gag	912
Glu	Gln	His	Asn	Glu	Arg	Asn	Ser	Lys	Leu	Arg	Gln	Glu	Asn	Met	Glu	
	290					295					300					
ctg	gct	gag	agg	ctc	aag	aag	ctg	att	gag	cag	tat	gag	ctg	cgc	gag	960
Leu	Ala	Glu	Arg	Leu	Lys	Lys	Leu	Ile	Glu	Gln	Tyr	Glu	Leu	Arg	Glu	
305					310					315					320	
gag	cat	atc	gac	aaa	gtc	ttc	aaa	cac	aag	gac	cta	caa	cag	cag	ctg	1008
Glu	His	Ile	Asp	Lys	Val	Phe	Lys	His	Lys	Asp	Leu	Gln	Gln	Gln	Leu	
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tcc cag agg atg tgt gag ctg atg aag cag caa gag acc cac ctg aag 1152
 Ser Gln Arg Met Cys Glu Leu Met Lys Gln Gln Glu Thr His Leu Lys
 370 375 380

caa cag ctt gcc cta tac aca gag aag ttt gag gag ttc cag aac aca 1200
 Gln Gln Leu Ala Leu Tyr Thr Glu Lys Phe Glu Glu Phe Gln Asn Thr
 385 390 395 400

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 Leu Ser Lys Ser Ser Glu Val Phe Thr Thr Phe Lys Gln Glu Met Glu
 405 410 415

aag atg act aag aag atc aag aag ctg gag aaa gaa acc acc atg tac 1296
 Lys Met Thr Lys Lys Ile Lys Lys Leu Glu Lys Glu Thr Thr Met Tyr
 420 425 430

cgg tcc cgg tgg gag agc agc aac aag gcc ctg ctt gag atg gct gag 1344
 Arg Ser Arg Trp Glu Ser Ser Asn Lys Ala Leu Leu Glu Met Ala Glu
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gag aaa aca gtc cgg gat aaa gaa ctg gag ggc ctg cag gta aaa atc 1392
 Glu Lys Thr Val Arg Asp Lys Glu Leu Glu Gly Leu Gln Val Lys Ile
 450 455 460

caa cgg ctg gag aag ctg tgc cgg gca ctg cag aca gag cgc aat gac 1440
 Gln Arg Leu Glu Lys Leu Cys Arg Ala Leu Gln Thr Glu Arg Asn Asp
 465 470 475 480

ctg aac aag agg gta cag gac ctg agt gct ggt ggc cag ggc tcc ctc 1488
 Leu Asn Lys Arg Val Gln Asp Leu Ser Ala Gly Gly Gln Gly Ser Leu
 485 490 495

act gac agt ggc cct gag agg agg cca gag ggg cct ggg gct caa gca 1536
 Thr Asp Ser Gly Pro Glu Arg Arg Pro Glu Gly Pro Gly Ala Gln Ala
 500 505 510

ccc agc tcc ccc agg gtc aca gaa gcg cct tgc tac cca gga gca ccg 1584
 Pro Ser Ser Pro Arg Val Thr Glu Ala Pro Cys Tyr Pro Gly Ala Pro
 515 520 525

agc aca gaa gca tca ggc cag act ggg cct caa gag ccc acc tcc gcc 1632
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<210> 47

<211> 550

<212> PRT

<213> Oryctolagus cuniculus

<400> 47

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 Gln Glu Trp Ile Leu Asp Thr Ile Asp Ser Leu Arg Ser Arg Lys Ala
 35 40 45
 Arg Pro Asp Leu Glu Arg Ile Cys Arg Met Val Arg Arg Arg His Gly
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 Pro Glu Pro Glu Arg Thr Arg Ala Glu Leu Glu Lys Leu Ile Gln Gln
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 Arg Ala Val Leu Arg Val Ser Tyr Lys Gly Ser Ile Ser Tyr Arg Asn
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 Ala Ala Arg Val Gln Pro Pro Arg Arg Gly Ala Thr Pro Pro Ala Pro
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 Pro Arg Ala Pro Arg Gly Gly Pro Ala Ala Ala Ala Ala Pro Pro Pro
 115 120 125
 Thr Pro Ala Pro Pro Pro Pro Pro Ala Pro Val Ala Ala Ala Ala
 130 135 140
 Pro Ala Arg Ala Pro Arg Ala Ala Ala Ala Ala Ala Ala Thr Ala
 145 150 155 160
 Pro Pro Ser Pro Gly Pro Ala Gln Pro Gly Pro Arg Ala Gln Arg Ala
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 Ala Pro Leu Ala Ala Pro Pro Pro Ala Pro Ala Ala Pro Pro Ala Ala
 180 185 190
 Ala Pro Pro Ala Gly Pro Arg Arg Ala Pro Pro Pro Ala Ala Ala Val
 195 200 205
 Ala Ala Arg Glu Ser Pro Leu Pro Pro Pro Pro Gln Pro Pro Ala Pro
 210 215 220
 Pro Gln Gln Gln Gln Gln Pro Pro Pro Pro Pro Pro Gln Gln Pro
 225 230 235 240
 Gln Pro Pro Pro Glu Gly Gly Ala Ala Arg Ala Gly Gly Pro Ala Arg
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 Pro Val Ser Leu Arg Glu Val Val Arg Tyr Leu Gly Gly Ser Ser Gly
 260 265 270
 Ala Gly Gly Arg Leu Thr Arg Gly Arg Val Gln Gly Leu Leu Glu Glu
 275 280 285
 Glu Ala Ala Ala Arg Gly Arg Leu Glu Arg Thr Arg Leu Gly Ala Leu
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 Ala Leu Pro Arg Gly Asp Arg Pro Gly Arg Ala Pro Pro Ala Ala Ser
 305 310 315 320
 Ala Arg Ala Ala Arg Asn Lys Arg Ala Gly Glu Glu Arg Val Leu Glu
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 340 345 350
 Asp Val Val Ser Glu Gly Ser Glu Val Pro Glu Ser Asp Arg Pro Ala
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 Gly Ala Gln His His Gln Leu Asn Gly Gly Glu Arg Gly Pro Gln Thr
 370 375 380
 Ala Lys Glu Arg Ala Lys Glu Trp Ser Leu Cys Gly Pro His Pro Gly
 385 390 395 400
 Gln Glu Glu Gly Arg Gly Pro Ala Ala Gly Ser Gly Thr Arg Gln Val
 405 410 415
 Phe Ser Met Ala Ala Leu Ser Lys Glu Gly Gly Ser Ala Ser Ser Thr
 420 425 430
 Thr Gly Pro Asp Ser Pro Ser Pro Val Pro Leu Pro Pro Gly Lys Pro

FOOTNOTES

435 440 445
 Ala Leu Pro Gly Ala Asp Gly Thr Pro Phe Gly Cys Pro Ala Gly Arg
 450 455 460
 Lys Glu Lys Pro Ala Asp Pro Val Glu Trp Thr Val Met Asp Val Val
 465 470 475 480
 Glu Tyr Phe Thr Glu Ala Gly Phe Pro Glu Gln Ala Thr Ala Phe Gln
 485 490 495
 Glu Gln Glu Ile Asp Gly Lys Ser Leu Leu Leu Met Gln Arg Thr Asp
 500 505 510
 Val Leu Thr Gly Leu Ser Ile Arg Leu Gly Pro Ala Leu Lys Ile Tyr
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 Pro Glu Gly Phe Leu Gly
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<211> 2561

<212> DNA

<213> *Oryctolagus cuniculus*

<220>

<221> CDS

<222> (246)...(1895)

<400> 48

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 cgctgcgccc cccggggggg ggaggcggag gaggcgggca gcggcgagg gagggagcc 180
 ggggaggggg gcgcgcgct gggagggagg cagcgcgcac ggtgcagccg ggccgggcgg 240
 gaggc atg gcg ggg ccc ccg gcc cta ccc ccg ccg gag acg gcg gcg gcc 290
 Met Ala Gly Pro Pro Ala Leu Pro Pro Pro Glu Thr Ala Ala Ala
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 gcc acc acg gcc gcg gcc gcc gcc tgc tgc tcc gcc gct tcc ccg cac 338
 Ala Thr Thr Ala Ala Ala Ala Ser Ser Ser Ala Ala Ser Pro His
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 tac caa gag tgg att ctg gac acc atc gac tgc ctg cgc tgc cgc aag 386
 Tyr Gln Glu Trp Ile Leu Asp Thr Ile Asp Ser Leu Arg Ser Arg Lys
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 gcg cgg ccg gac ctg gag cgc atc tgc cgg atg gtg cgg cgg cgg cac 434
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 Gly Pro Glu Pro Glu Arg Thr Arg Ala Glu Leu Glu Lys Leu Ile Gln
 65 70 75
 cag cgc gcc gtg ctc cgg gtc agc tac aag ggg agc atc tgc tac cgc 530
 Gln Arg Ala Val Leu Arg Val Ser Tyr Lys Gly Ser Ile Ser Tyr Arg
 80 85 90 95
 aac gcg gcg cgc gtc cag ccg ccc cgg cgc gga gcc acc ccg ccg gcc 578
 Asn Ala Ala Arg Val Gln Pro Pro Arg Arg Gly Ala Thr Pro Pro Ala
 100 105 110

102721 6252007

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gcc gcg ccc ctg gcc gcg ccg ccg ccc gcg ccc gcc gct ccc ccg gcg Ala Ala Pro Leu Ala Ala Pro Pro Pro Ala Pro Ala Ala Pro Pro Ala 180 185 190	818
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